## CLAIM AMENDMENTS

1. (previously presented) A porous particulate composition comprising a hydrozirconated matrix further comprising at least one zirconium component and at least one polymer having a plurality of olefin groups wherein the zirconium component is chemically bonded to the matrix through hydrocarbon groups derived from reacting at least one zirconium compound with covalently bound olefin groups of the polymer.

2. (Cancelled)

3. (previously presented) The composition of claim 1, wherein the olefin groups are selected from the group consisting of vinyl, allyl, alkenyl, alkynyl, conjugated olefin groups, olefin groups having polar substituents and combinations thereof.

4. (Currently amended) The composition of claim 1, wherein the polymer having a plurality of olefin groups is selected from the group consisting of divinylbenzene polymers, divinylbenzene copolymers, styrene/divinylbenzene copolymers, divinylbenzene resins, cross-linked divinylbenzene polymers, cross-linked butadiene polymers, styrene/butadiene copolymers, styrene/isoprene copolymers, vinylsiloxane polymers, and vinylsiloxane copolymers [[, divinylbenzene/vinylsiloxane copolymers, condensation products of vinyl siloxane polymers and copolymers and combinations thereof]].

5. (previously presented) The composition of claim 4, wherein polymers having a plurality of olefin groups are formed in the presence of porogens.

6. (previously presented) The composition of claim 1, wherein a plurality of olefin groups are disposed on surfaces of organic materials and one or more polymers.

7. (previously presented) The composition of claim 4, wherein the polymer having a plurality of olefin groups is a macroporous polymeric material prepared from a suspension polymer.

8. (previously presented) The composition of claim 7, wherein the macroporous polymer is prepared from divinylbenzene.

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (previously presented) The composition of claim 1, wherein the polymer having a plurality of olefin groups is a vinylsiloxane.

14. (previously presented) The composition of claim 1, wherein the zirconium component is an organozirconium compound capable of undergoing a hydrozirconation reaction.

15. (previously presented) The composition of claim 14, wherein the organozirconium compound is selected from the group consisting of bis (cyclopentadienyl)zirconium dihydride, bis (pentamethylcyclopentadienyl) zirconium dihydride, bis (methylcyclopentadienyl) zirconium dihydride, bis (n-butylcyclopentadienyl) zirconium dihydride, bis (indenyl) zirconium dihydride, bis (1-fluorenyl) zirconium dihydride, bis (cyclopentadienyl) zirconium hydrido chloride, bis (pentamethylcyclopentadienyl) zirconium hydrido chloride, bis (methylcyclopentadienyl) zirconium hydrido chloride, bis (n-butylcyclopentadienyl) zirconium hydrido chloride, bis

(indenyl) zirconium hydrido chloride, bis (fluorenyl) zirconium dihydrido chloride, bis (cyclopentadienyl)zirconium methyl hydride, bis (pentamethylcyclopentadienyl) zirconium methyl hydride, bis (methylcyclopentadienyl) zirconium methyl hydride, bis (n-butylcyclopentadienyl) zirconium methyl hydride, bis (pentamethylcyclopentadienyl)zirconium (phenyl)(hydride), bis (pentamethylcyclopentadienyl) zirconium (methyl)(hydride), bis (indenyl) zirconium methyl hydride, bis (1-fluorenyl) zirconium methyl hydride, methylene bis(cyclopentadienyl) zirconium methyl hydride, methylene bis(cyclopentadienyl) zirconium hydrido chloride, methylene bis(cyclopentadienyl) zirconium dihydride, ethylene bis(cyclopentadienyl) zirconium methyl hydride, ethylene bis(cyclopentadienyl) zirconium hydrido chloride, dimethylsilyl bis(cyclopentadienyl) zirconium methyl hydride, ethylene bis(cyclopentadienyl) zirconium dihydride, dimethylsilyl bis(cyclopentadienyl) zirconium dihydride, methylene(cyclopentadienyl) (1-fluorenyl) zirconium methyl hydride, dimethysilyl(cyclopentadienyl) (1-fluorenyl) zirconium dihydride, isopropyl(cyclopentadienyl)(1-fluorenyl) zirconium methyl hydride, isopropyl(cyclopentadienyl) (1-octahydrofluorenyl) zirconium methyl hydride, dimethylsilyl(methylcyclopentadienyl) (1-fluorenyl) zirconium dihydride, methylene(cyclopentadienyl) (tetramethylcyclopentadienyl) zirconium methyl hydride, methylene(cyclopentadienyl) (tetramethylcyclopentadienyl) zirconium dihydride, ethylenebis(indenyl)zirconium dihydride, ethylenebis(indenyl)zirconium hydrido chloride, ethylenebis(indenyl)zirconiummethylhydride, dimethylsilylbis(indenyl)-zirconium methylhydride, dimethylsilylbis(indenyl)zirconium dihydride, dimethylsilylbis(indenyl)zirconium hydridochloride, ethylenebis(tetrahydroindenyl)-zirconium dihydride, ethylenebis(tetrahydroindenyl)zirconium methyl hydride, ethylenebis(tetrahydroindenyl)zirconium hydrido chloride, dimethylsilylbis(3-trimethylsilylcyclopentadientyl)zirconium dihydride, dimethylsilylbis(3-trimethylsilylcyclopentadientyl)zirconium methyl hydride, chemically and structurally related zirconium compounds and combinations thereof.

16. (Cancelled)

17. (Canceled)

18. (Canceled)

19. (Canceled)

20. (Canceled)

21. (previously presented) A porous particulate catalyst composition comprising a hydrozirconated matrix further comprising at least one zirconium component and at least one polymer having a plurality of olefin groups wherein the zirconium component is chemically bonded to the matrix through hydrocarbon groups derived from reacting at least one zirconium compound with covalently bound olefin groups of the polymer and at least one activator component.

22. (Cancelled)

23. (previously presented) A catalytic composition of claim 21, wherein the hydrozirconated matrix further comprises a plurality of catalytic components.

24. (previously presented) The catalyst composition of claim 21, wherein at least one activator component is selected from the group consisting of: alumoxanes, alkylalumoxanes, methylaluminoxane (MAO), modified methyl aluminoxane (MMAO), isobutylaluminoxane, butylaluminoxane, heptylaluminoxane and methylbutylaluminoxane, aluminum alkyls, $Al(C_2H_5)_3$, $Al(CH_2CH(CH_3)_2)_3$, $Al(C_3H_7)_3$, $Al((CH_2)_3CH_3)_3$, $Al((CH_2)_5CH_3)_3$, $Al(C_6F_5)_3$, $Al(C_2H_5)_2Cl_1$, $Al_2(C_2H_5)_3Cl_2$, $AlCl_3$, boranes, organoboranes, trifluoroborane, triphenylborane, Tris(4-fluoro-phenyl)borane, Tris(3,5-difluorophenyl)borane, Tris(4-fluoromethylphenyl)borane, Tris(pentafluoro-phenyl)borane, Tris(tolyl)borane, Tris(3,5-dimethylphenyl)borane, Tris(3,5-difluorophenyl)borane, Tris(3,4,5trifluorophenyl)borane, borates, organoborates,

dimethylanilinium tetra(pentafluorophenyl) borate, sodium [B {3, 5 - $(CF_3)_2C_6F_3$}$_4$], [H $(OEt_2)_1$ [B {3, 5 - $(CF_3)_2C_6F_3$}$_4$], triaryl carbenium tetraarylborates, N,N-dialkylanilinium borate salts, N,N-dimethylanilinium tetrakis(pentafluorophenyl)borate, N,N-diethylanilinium tetra(phenyl)borate, N,N-2,4,6-pentamethylanilinium tetraphenyl-borate, chemically related Group 13 compounds, dialkyl ammonium salts, di(i-propyl)ammonium tetrakis(pentafluorophenyl)borate, dicyclohexylammonium tetra(phenyl)boron, chemically related Group 13 anions, triaryl phosphonium borate salts, triphenylphosphonium tetraphenylborate, tri(methylphenyl)phosphonium tetra(phenyl)borate, tri(dimethylphenyl)phosphonium tetra(phenyl)borate, chemically related non-coordinating anions, and combinations thereof.

25. (previously presented) The catalyst composition of claim 21, wherein the hydrozirconated matrix is represented by a formula $[Cp^1Cp^2MR]^+$ $[NCA]^-$, wherein M is zirconium, $Cp^1$ is a substituted or non-substituted cyclopentadienyl ring and $Cp^2$ is the same or different, substituted or non-substituted cyclopentadienyl ring and may be bridged symmetrically or asymmetrically to $Cp^1$, R is a hydrocarbyl group derived from the hydrozirconation of the polymer having a plurality of olefin groups and NCA is a non-coordinating anion selected from the group consisting of: dimethylanilinium tetra(pentafluorophenyl) borate, sodium [B {3, 5 - $(CF_3)_2C_6F_3$}$_4$], [H $(OEt_2)_1$ [B {3, 5 - $(CF_3)_2C_6F_3$}$_4$], triaryl carbenium tetraarylborates, N,N-dialkylanilinium borate salts, N,N-dimethylanilinium tetrakis(pentafluorophenyl)borate, N,N-diethylanilinium tetra(phenyl)borate, N,N-2,4,6-pentamethylanilinium tetraphenyl-borate, chemically related Group 13 compounds; dialkyl ammonium borate salts, di(i-propyl)ammonium tetrakis(pentafluorophenyl)borate, dicyclohexylammonium tetra(phenyl)boron, triaryl phosphonium borate salts, triphenylphosphonium tetraphenylborate, tri(methylphenyl)phosphonium tetra(phenyl)borate, tri(dimethylphenyl)phosphonium tetra(phenyl)borate, chemically related Group 13 anions, chemically related non-coordinating anions and combinations thereof.

26. (previously presented) The composition of claim 1 [[ and 21]], wherein the hydrozirconated matrix is prepared from polymers having particle diameters ranging from 2 nm to 1000 μm.

27. (Cancelled)

28. (Cancelled)

29. (Cancelled)

30. (Cancelled)

31. (Cancelled)

32. (Cancelled)

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34. (Cancelled)

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41. (Cancelled)

42. (Cancelled)

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46. (Cancelled)

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48. (Cancelled)

49. (Cancelled)

50. (Cancelled)

51. (Cancelled)

**Claim Rejections**

Applicants acknowledge Examiner's objections to claim 4 and dependent claims 5, 7 and 8. Applicants have cancelled claims 9, 10 and 12 without prejudice. Applicants have amended claim 4 to obviate the Examiner's objection.